

CLAIMS:

1. An anticollision method to identify data carriers (2, 3, 4) arranged in a communication field (HF) of a reader station (1), which method involves the following steps:

- sending interrogation information (AI) from the reader station (1) to all data carriers (2, 3, 4) arranged in the communication field (HF), as a result of which the start of a quantity of N successive time slots (S1, S2, S3, S4) is defined;

- sending response information (RI1, RI2, RI3) from the data carriers (2, 3, 4) to the reader station (1), wherein each data carrier (2, 3, 4) selects one of the N time slots (S1, S2, S3, S4) to send its response information (RI1, RI2, RI3) identifying the data carrier (2, 3, 4);

- sending a time-slot progressing information (ZWI), for progressing from the current time slot (S) to the time slot (Si) following next in line, from the reader station (1) to the data carriers (2, 3, 4), characterized in that the time-slot progressing information (ZWI) comprises a time-slot characterizing information, which identifies one of the N time slots (S), and which is evaluated by the data carriers (2, 3, 4) in order to establish the current time slot (S) in each case.

2. An anticollision method as claimed in claim 1, characterized in that the time-slot progressing information (ZWI) is sent by the reader station (1) if it has been established by the reader station (1) that the current time slot (S) is inappropriate for identifying one of the data carriers (2, 3, 4).

3. An anticollision method as claimed in claim 1, characterized in that the time-slot characterizing information is formed by two pulses (P1, P2), wherein the time duration (TN) of a pulse interval between the two pulses (P1, P2) identifies one of the N time slots (S).

4. An anticollision method as claimed in claim 1, characterized in that the time-slot characterizing information is formed by multiple pulses, which identify a consecutive time-slot number (ZN).

5. An anticollision method as claimed in claim 4, characterized in that the time-slot characterizing information contains a checksum (PS) of the time-slot number (ZN).

6. An anticollision method as claimed in claim 1, characterized in that the reader station (1) sends the time-slot progressing information (ZWI) if has been established by the reader station (1) that more than one of the data carriers (2, 3, 4) are responding in the current time slot (S), or if it has been established by the reader station (1) that none of the data carriers (2, 3, 4) is responding in the current time slot (S).

7. A data carrier (2, 3, 4) to respond to an interrogation information (AI) received from a reader station (1) with a response information (RI1, RI2, RI3) identifying the data carrier (2, 3, 4) during one of N time slots (S1, S2, S3, S4), with receiver means (9) to receive the interrogation information (AI) and the time-slot progressing information (ZWI) from the reader station (1), and with time-slot definition means (11), which are designed to define the sequence of the N time slots (S1, S2, S3, S4) as a function of the instant (t1) of reception of the interrogation information (AI), wherein, on receipt of the time-slot progressing information (ZWI), progressing takes place from the current time slot (S) to the time slot (Si) following next in line, and with

- sending-definition means (12) to define one of the N time slots (S1, S2, S3, S4) as a return time slot in which the data carrier (2, 3, 4) sends the response information (RI1, RI2, RI3) to the reader station (1); and with

- sending means (9) to send the response information (RI1, RI2, RI3) to the reader station (1), characterized in that the time-slot progressing information (ZWI) comprises a time-slot characterizing information, which identifies one of the N time slots (S1, S2, S3, S4), and that the time-slot definition means (12) are designed to evaluate the time-slot characterizing information in order to determine the current time slot (S) in each case.

8. A data carrier (2, 3, 4) as claimed in claim 7, characterized in that the time-slot definition means (12) comprise a counter, which is designed to determine the time duration (TN) of a pulse interval between two pulses (P1, P2) of the time-slot characterizing information.

9. A data carrier (2, 3, 4) as claimed in claim 7, characterized in that the time-slot definition means (12) are designed to evaluate multiple pulses of the time-slot characterizing information, wherein the pulses identify a consecutive time-slot number (ZN).

5 10. A data carrier (2, 3, 4) as claimed in claim 9, characterized in that the time-slot definition means (12) are designed to evaluate a checksum (PS) of the time-slot number (ZN) contained in the time-slot characterizing information.

11. A reader station (1) to identify data carriers (2, 3, 4), which are arranged in a
10 communication field (HF) of the reader station (1), with sending means (5) to send an interrogation information (AI) and a time-slot progressing information (ZWI) to all data carriers (2, 3, 4) arranged in the communication field (HF), wherein, as a result of the interrogation information (AI), the start of a quantity of N successive time slots (S1, S2, S3, S4) is defined, and wherein, as a result of the time-slot progressing information (ZWI),
15 progressing takes place from the current time slot (S) to the time slot (Si) following next in line, and with receiver means (5) to receive a response information (RI1, RI2, RI3) from the data carriers (2, 3, 4) in the communication field (HF), wherein each data carrier (2, 3, 4) individually selects one of the N time slots (S1, S2, S3, S4) as the return time slot to send its response information (RI1, RI2, RI3) identifying the data carrier (2, 3, 4); and with
20 - time-slot evaluation means (7) to evaluate the response information (RI1, RI2, RI3) received from the data carriers (2, 3, 4) in the particular time slot (S1, S2, S3, S4), characterized in that the reader station (1) is designed to send a time-slot progressing information (ZWI) comprising a time-slot characterizing information, wherein the time-slot characterizing information identifies one of the N time slots (S1, S2, S3, S4), and is evaluated
25 by the data carriers (2, 3, 4) in order to establish the current time slot (S) in each case.

12. A reader station (1) as claimed in claim 11, characterized in that the sender means (5) are designed to send the time-slot progressing information (ZWI) if it has been established by the time-slot evaluation means (7) that the current time slot (S) is
30 inappropriate for identifying one of the data carriers (2, 3, 4).

13. A reader station (1) as claimed in claim 11, characterized in that the time-slot characterizing information is formed by two pulses (P1, P2), wherein the time duration (TN)

of a pulse interval between the two pulses (P1, P2) identifies one of the N time slots (S1, S2, S3, S4).

14. A reader station (1) as claimed in claim 11, characterized in that the time-slot
5 characterizing information is formed by multiple pulses, which identify a consecutive time-slot number (ZN).

15. A reader station (1) as claimed in claim 14, characterized in that the time-slot
characterizing information contains a checksum (PS) of the time-slot number (ZN).

10 16. A reader station (1) as claimed in claim 11, characterized in that the reader station (1) sends the time-slot progressing information (ZWI) if it has been established by the time-slot evaluation means (7) that more than one of the data carriers (2, 3, 4) are responding in the current time slot (S), or if it has been established by the time-slot evaluation means (7)
15 that none of the data carriers (2, 3, 4) is responding in the current time slot (S).